

## A new genus *Sanitubius* and a revived genus *Kishidaia* of the family Gnaphosidae (Araneae)

Takahide Kamura

Biological Laboratory, Otemon Gakuin University, 2-1-15, Nishi-Ai, Ibaraki,  
Osaka, 567-8502 Japan  
E-mail: kamura@res.otemon.ac.jp

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**Abstract** — Two genera of the family Gnaphosidae are reported. A new genus *Sanitubius* is described, and *Sanitubius anatolicus* (Kamura 1989) n. comb. is transferred from *Herpyllus* to the new genus. *Kishidaia* Yaginuma 1960 is revived from a synonym of *Poecilochroa* Westring 1874 and redescribed. Two species, *Kishidaia conspicua* (L. Koch 1866) n. comb. and *K. coreana* (Paik 1992) n. comb., are transferred from *Poecilochroa* to *Kishidaia*. *Sanitubius anatolicus*, *Kishidaia albimaculata* (S. Saito 1934) and *K. conspicua* are illustrated.

**Key words** — Araneae, Gnaphosidae, *Sanitubius* n. gen., *Kishidaia*, new genus, new combination, taxonomy.

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### Introduction

*Herpyllus anatolicus* originally described by Kamura (1989) was assigned to *Herpyllus* Hentz 1832 based on the correspondence of several characters to those of other known members of this genus. However, judging from the structures of male palp and female genitalia, I reconsidered that this species was misplaced in *Herpyllus*. In this paper, I propose a new genus for this species.

The genus *Kishidaia* was established by Yaginuma (1960), and only one species, *K. albimaculata* (S. Saito 1934), was known under this genus. Although Paik (1992a) treated *Kishidaia* as a junior synonym of *Poecilochroa* Westring 1874, I considered that these two genera are distinct from each other. Two species previously placed in *Poecilochroa* should be transferred to *Kishidaia*.

Size of posterior median eye in following descriptions means the width of the eye measured at the horizontal level.

### Family Gnaphosidae

#### Genus *Sanitubius* n. gen.

[Japanese name: Mumon-tonbigumo-zoku]

Type species. *Herpyllus anatolicus* Kamura 1989.

Diagnosis. This genus is similar to *Herpyllus* Hentz 1832, but is separated from the latter by male palp without median apophysis and by female genitalia with a pair of long ducts.

Description. Thoracic groove distinct (Fig. 1). Anterior eye row slightly recurved and posterior eye row slightly procurved as seen from above; posterior median eyes separated from each other by at least the eye size; median ocular area longer than wide, with anterior width slightly narrower than the posterior (Fig. 2). Chelicera with three teeth on promargin and one tooth on retromargin (Fig. 3). Endites slightly convergent apically (Fig. 4). Legs with scopulae on all tarsi, and metatarsi I and II; trochanters I and II without ventral notch, trochanters III and IV each with a shallow ventral notch (Fig. 5); leg IV longest, the other legs subequal to one another in length. Abdomen unicolored. Male abdomen with a dorsal scutum. Female median spinneret slightly swollen at proximal part, with five large spigots on dorso-proximal part (Fig. 6). Male palp with embolus rather short, conductor membranous, tegulum with

median part protruding prolaterally and pushing aside subtegulum, retrolateral tibial apophysis distinct, and without median apophysis (Figs. 7–8). Epigynum with a pair of lateral furrows and copulatory openings situated anteriorly (Fig. 9). Female genitalia with a pair of long ducts situated on ventral side of spermathecae (Fig. 10).

Remarks. *Herpyllus anatolicus* Kamura 1989 was originally described under the genus based on having following characters: trochanters III and IV each with a shallow ventral notch; chelicera with three teeth on promargin and one tooth on retromargin; endites slightly convergent apically; female median spinneret slightly swollen at proximal part, with five spigots on dorso-proximal part; male palp with membranous conductor; epigynum with a pair of lateral furrows. However, this species also has characters which are different from those of other known species of *Herpyllus*; in this species male palp lacks median apophysis which is present in other members, and this species has female genitalia with a pair of long ducts, but such ducts are absent in other members. Based on these differences of structures of male palp and female genitalia I considered that a new genus must be established for this species.

Etymology. Generic name is an arbitrary combination of letters and is masculine in gender.

*Sanitubius anatolicus* (Kamura 1989) **n. comb.**

[Japanese name: Nami-tonbigumo]

(Figs. 1–10)

*Herpyllus anatolicus* Kamura 1989, p. 112, figs. 1–9; Yaginuma et al. 1990, p. 271; Paik 1992b, p. 135, figs. 11–25; Platnick 1993, p. 656; Platnick 1997, p. 770; Tanikawa 2000, p. 124.

Specimens examined collected from Japan. HONSHU: 2 ♀, Mt. Tenran-zan, Han-nou-shi, Saitama Pref., 12.VII.1998 (matured in VII.1998) and 18.X.1998, T. Hiramatsu leg.; 2 ♀, SW of Mt. Jinba-yama, Fujino-machi, Tsukui-gun, Kanagawa Pref., 21.VI.1997, M. Ban leg.; 1 ♀, Hayakawa, Ayase-shi, Kanagawa Pref., 17.VI.1997, M. Ban leg.; 1 ♀, Nobi, Yokosuka-shi, Kanagawa Pref., 8.IX.1988, K. Kumada leg.; 3 ♀, near Mt. Kirara-mine, Komono-cho, Mie-gun, Mie Pref., 400 m alt., 24.VI.1990, K. Ogata leg.; 1 ♀, Azuchi-cho, Gamou-gun, Shiga Pref., 4.VII.1993, Y. Hatamori leg.; 1 ♀, Ishiyama-dera, Otsu-shi, Shiga Pref., 11.VIII.1988, T. Kamura leg.; 1 ♀, Kasagi-cho, Soraku-gun, Kyoto Pref., 29.VII–5.VIII.1985, S. Kaneno leg.; 1 ♂, Ninchoji, Ibaraki-shi, Osaka Pref., 20.VI.1992, T. Kamura leg.; 1 ♀, Kurakuen, Nishinomiya-shi, Hyogo Pref., 5.VII.1980, H. Shimizu leg.; 1 ♂, Shukugawa, Nishinomiya-shi, Hyogo Pref., 19.VI.1988, T. Kamura leg.; 1 ♂, Shirakawadai, Suma-ku, Kobe-shi,

Hyogo Pref., 25.VII.1979, T. Yamano leg.; 1 ♂, Kamagari-cho, Aki-gun, Hiroshima Pref., 15.VI.1996, M. Ogawa leg. SHIKOKU: 1 ♀, Omogo-mura, Kamiukena-gun, Ehime Pref., 20.VIII.1958, K. Nakahira leg. KYUSHU: 1 ♂, Mt. Tachibana-yama, Fukuoka Pref., 20.V–3.VI.1979, K. Yamagishi leg.; 1 ♀, Mt. Hiko-san, Soeda-machi, Tagawa-gun, Fukuoka Pref., 4–9.VIII.1958, C. Okuma leg.

Described by Kamura (1989) as *Herpyllus anatolicus*.

Measurements (variation). Body length ♂ 3.8–5.5 mm, ♀ 5.3–7.3 mm. Carapace length ♂ 1.6–2.4 mm, ♀ 2.3–2.9 mm; width ♂ 1.25–1.8 mm, ♀ 1.6–2.1 mm.

Distribution. Japan (Honshu, Shikoku and Kyushu), Korea (Paik 1992b).

Genus *Kishidaia* Yaginuma 1960

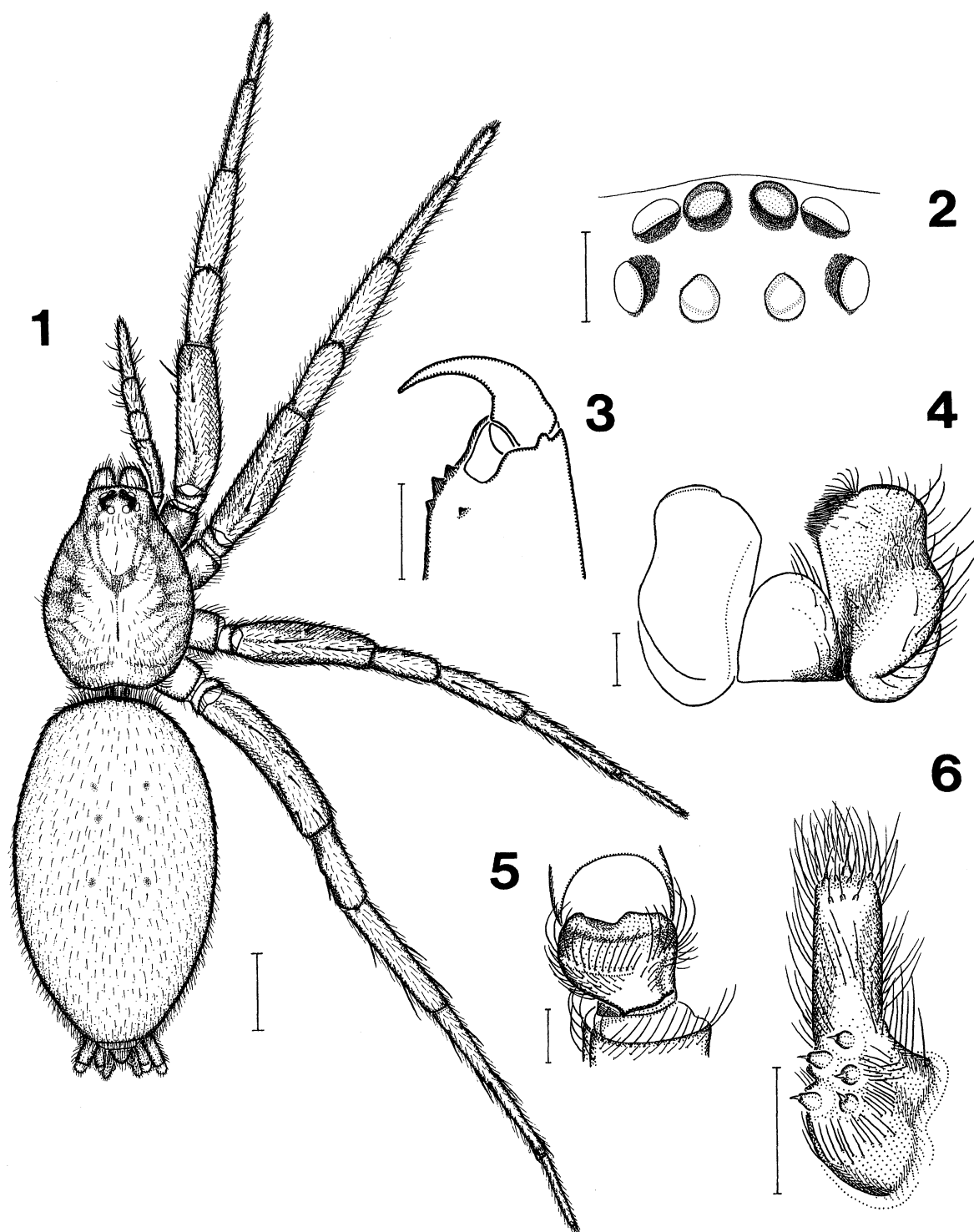
[Japanese name: Buchi-washigumo-zoku]

*Kishidaia* Yaginuma 1960, p. 122, append. 7.

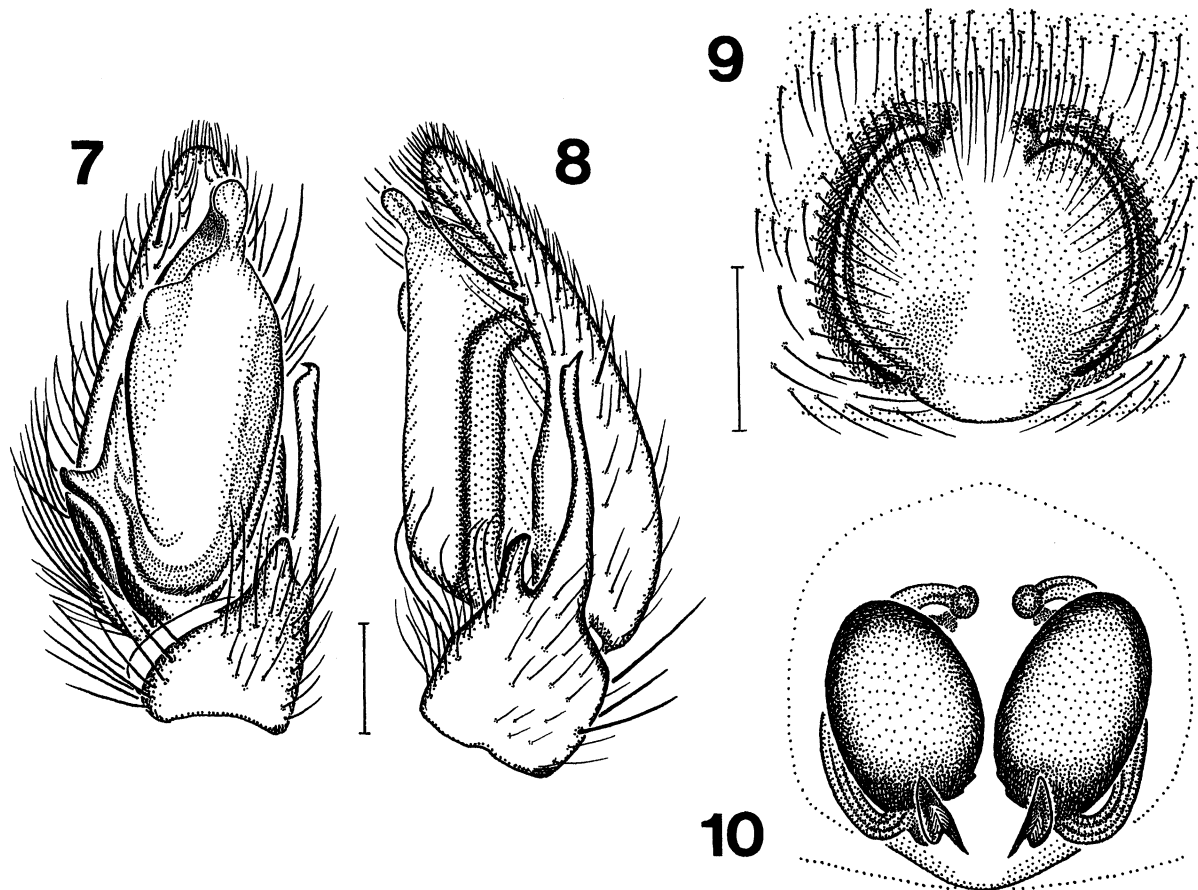
Type species. *Kishidaia quadrimaculata* Yaginuma 1960 (= *Castianeira albimaculata* S. Saito 1934).

Diagnosis. This genus is similar to *Poecilochroa* Westring 1874, *Sergiolus* Simon 1891, *Nodocion* Chamberlin 1922 and *Phaeocedus* Simon 1893 in having a carina on cheliceral promargin, but is separated from them by having a distinct tooth on cheliceral retromargin and by lacking median apophysis in male palp. This genus also resembles *Aphantaulax* Simon 1878 in the condition of cheliceral margins, but differs from it by the following points: male palpal femur has a ventral projection, thoracic groove is distinct, and posterior median eyes are separated from each other by only slightly more than the eye size.

Description. Thoracic groove distinct. Anterior eye row slightly recurved and posterior eye row almost straight as seen from above; posterior median eyes separated from each other by slightly more than the eye size; median ocular area longer than wide, with anterior width narrower than the posterior (Fig. 12). Cheliceral promargin with a minute tooth and a carina not divided into distinct teeth, and retromargin with one tooth (Fig. 13). Endites rather long and slightly convergent apically (Fig. 14). Legs with scopulae on all tarsi, and metatarsi I and II; trochanters I and II without ventral notch, trochanters III and IV each with a shallow ventral notch; leg formula 4-1-2-3. Abdomen with white markings (Fig. 11). Male abdomen with a dorsal scutum. Female median spinneret almost cylindrical (Fig. 15). Male palp



**Figs. 1-6.** *Sanitubius anatolicus* (Kamura 1989) (1, Shiga Pref.; 2 & 5, Hyogo Pref.; 3-4 & 6, Kyoto Pref.) — 1, Female, dorsal view; 2, eye area, dorsal view; 3, left chelicera, posterior view; 4, endites and labium, ventral view; 5, trochanter of fourth left leg, ventral view; 6, left female median spinneret, postero-dorsal view. (Scales: 1, 1.0 mm; 2-6, 0.2 mm)



**Figs. 7–10.** *Sanitubius anatolicus* (Kamura 1989) (7–8, Fukuoka Pref.; 9–10, Hyogo Pref.) — 7, Left male palp, ventral view; 8, same, retrolateral view; 9, epigynum, ventral view; 10, female genitalia, dorsal view. (Scales: 0.2 mm)

with embolus rather short, conductor membranous, and retrolateral tibial apophysis short, and without median apophysis (Figs. 16–19, 24–27). Male palpal femur with a ventral projection on basal part (Fig. 20). Epigynum with a pair of small pockets and a shallow longitudinal furrow in anterior part (Figs. 21, 28). Female genitalia with spermathecae elongate, and a pair of small lobes situated medianly (Figs. 22, 29).

**Remarks.** *Poecilochroa*, *Sergiolus*, *Nodocion* and *Phaeocedus* are similar to one another in lacking teeth on cheliceral retromargin and having a carina on cheliceral promargin and male palp with massive tegulum, short and stout embolus and distinct median apophysis. The absence of retromarginal cheliceral teeth may be a synapomorphic character for these genera because in almost gnaphosid genera cheliceral retromargin has one or more teeth and the reduction of teeth is considered as apomorphic.

On the other hand, *Kishidaia* has different characters from those stated above. In this genus, although

cheliceral promargin has a carina which is similar to that of above genera, cheliceral retromargin has a distinct tooth and male palp lacks median apophysis. These differences are enough to separate *Kishidaia* from the group of above four genera. Although Paik (1992a) synonymized *Kishidaia* with *Poecilochroa*, his treatment is unacceptable by above reasons.

*Kishidaia* rather resembles *Aphantaulax* in condition of cheliceral margins (pro- and retromargin have a carina and a tooth respectively) and structure of male palp (median apophysis is lacking). However, some differences are found between these genera; in *Kishidaia* femur of male palp has a ventral projection on basal part, thoracic groove is distinct, and posterior median eyes are separated from each other by slightly more than the eye size, while in *Aphantaulax* male palpal femur has no projection, thoracic groove is indistinct, and posterior median eyes are widely separated (two times the eye size). Therefore I considered that these two genera are distinct from each other.

*Kishidaia albimaculata* (S. Saito 1934)  
[Japanese name: Yotsuboshi-washigumo]  
(Figs. 11–23)

*Castianeira albimaculata* S. Saito 1934, p. 292, pl. 12 (fig. 11), pl. 14 (fig. 49); S. Saito 1939, p. 35; S. Saito 1959, p. 146, pl. 25 (fig. 200), pl. 26 (fig. 200); Roewer 1954, p. 609; Bonnet 1956, p. 961.

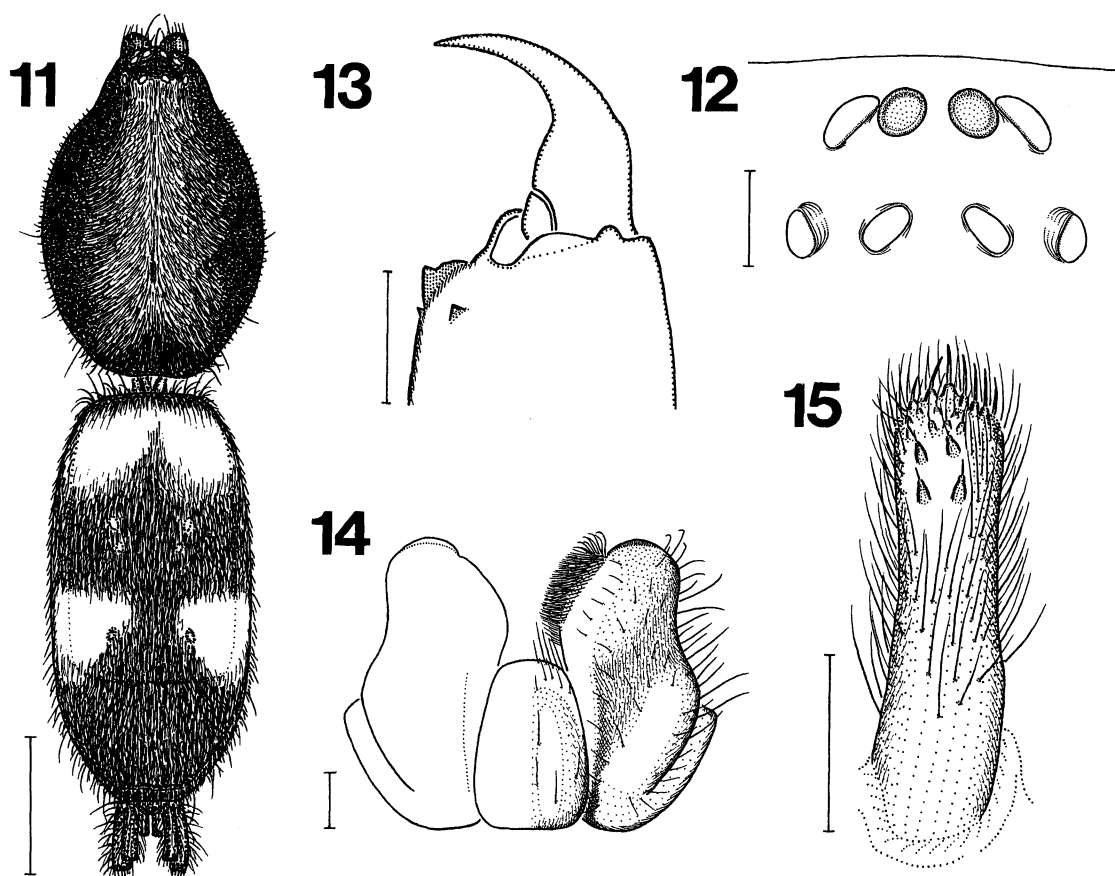
*Kishidaia quadrimaculata* Yaginuma 1960, p. 122, append. 8, pl. 56 (fig. 334), figs. 100 (6), 101 (M); Yaginuma 1961, p. 6; Yaginuma 1986, p. 189, pl. 50 (fig. 10), fig. 104 (3).

*Kishidaia albimaculata*: Yaginuma 1970, p. 676; Yaginuma 1974, p. 205; Yaginuma 1977, p. 404; Kamura 1986, p. 13, figs. 10–18; Chikuni 1989, pp. 119 (fig. 8), 249; Platnick 1989, p. 477; Yaginuma et al. 1990, p. 271; Platnick 1993, p. 656.

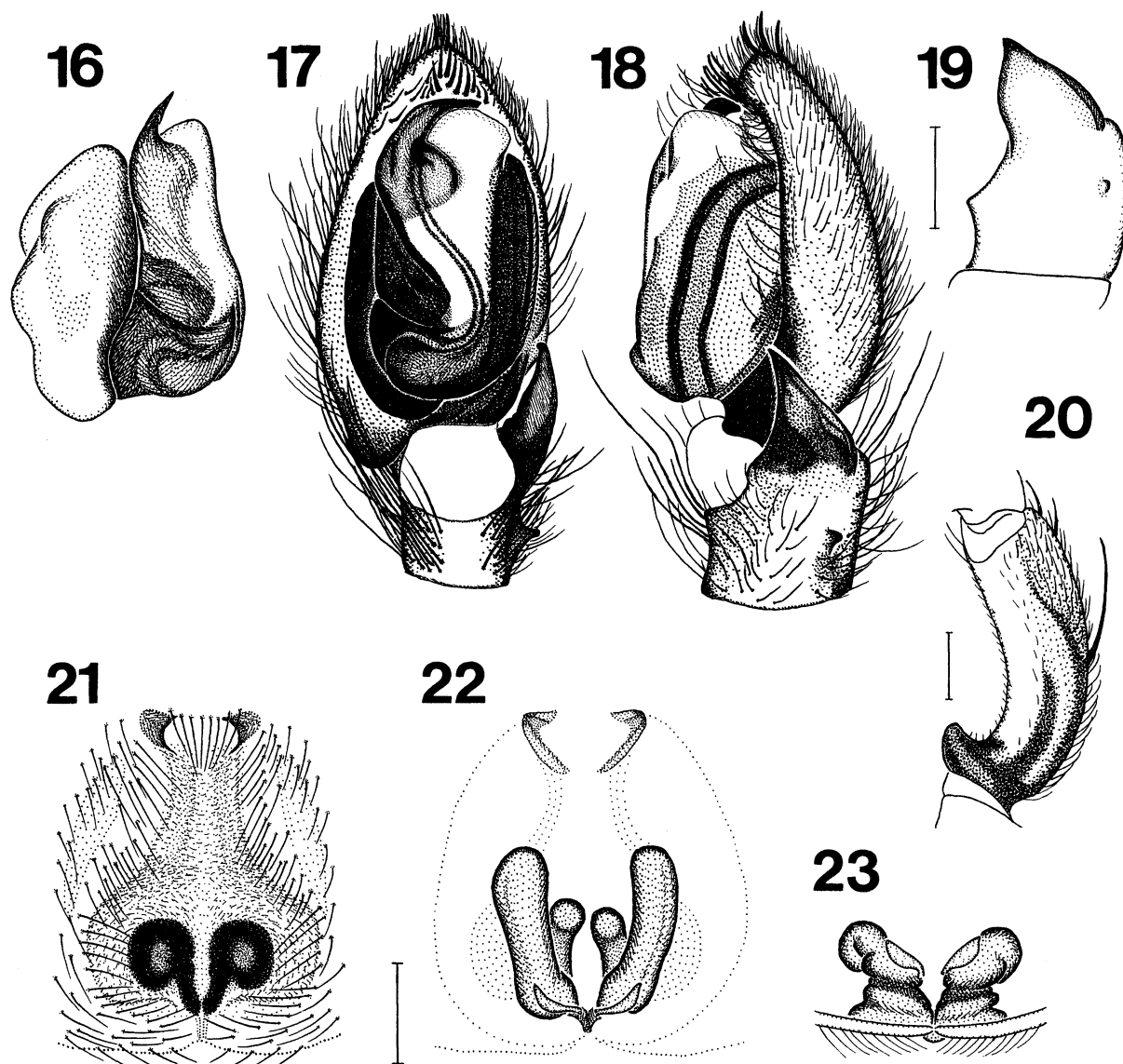
*Poecilochroa albimaculata*: Platnick 1997, p. 780; Marusik

& Koponen 2000, p. 60; Tanikawa 2000, p. 124.

Specimens examined collected from Japan.  
HOKKAIDO: 1♀, Mt. Rebun-dake, Rebun Island, 2.IX.1991, N. Yasuda leg.; 1♂, Mt. Rishiri, Rishiri Island, 1.VII.1990, N. Yasuda leg.; 1♂, Sarobetsu, Teshio-gun, 11.VII.1991, N. Yasuda leg.; 1♂, Shiretoko Peninsula, 26–28.VII.1987, S. Kaneno leg.; 1♂, near Shiretoko-goko, Shari-cho, Shari-gun, 24.VII.1991, T. Kamura leg.; 1♀, On-nenai, Tsurui-mura, Akan-gun, 4.VII.1992, S. Kaneno leg.; 1♀, Miyajima-misaki, Tsurui-mura, Akan-gun, 30.VII–2.VIII.1991, S. Kaneno leg.; 1♀, Tsuruoka, Kushiro-shi, 15.VII.1977, K. Kumada leg.; 1♀, Ashoro-cho, Ashoro-gun, 18–21.VII.1958, Y. Miyatake leg.; 1♂, Shikaribetsu, Otofuke-cho, Kato-gun, 2–4.VIII.1956, O. Sato leg.; 1♀, Oshoro, Otaru-shi, VIII.1958, S. Sakagami leg.; 2♂, Asarigawa-onsen, Otaru-shi, 17–24.VI.1986, Y. Yoshiyasu & S. Ikejiri leg.; 1♀, Ohtaki-mura, Usu-gun, 18.VI.1986, S. Ikejiri leg. HONSHU: 1♀, Mt. Murone-yama, Higashi-iwai-gun, Iwate Pref., 18.VI.1964, M. Ohno leg.; 1♀, Tachibana, Ohdate-shi, Akita Pref., 27–29.VI.1995, Y. Shiota leg.; 1♀,



**Figs. 11–15.** *Kishidaia albimaculata* (S. Saito 1934) (11, Kyoto Pref.; 12, Iwate Pref.; 13 & 15, Hokkaido; 14, Hyogo Pref.) — 11, Male body, dorsal view; 12, eye area, dorsal view; 13, left chelicera, posterior view; 14, endites and labium, ventral view; 15, left female median spinneret, dorsal view. (Scales: 11, 1.0 mm; 12–15, 0.2 mm)



**Figs. 16–23.** *Kishidaia albimaculata* (S. Saito 1934) (16, 19 & 21–23, Hokkaido; 17–18 & 20, Kyoto Pref.) — 16, Bulb of left male palp, prolateral view; 17, male palp, ventral view; 18, same, retrolateral view; 19, tibia of left male palp, retrolateral view; 20, femur of left male palp, retrolateral view; 21, epigynum, ventral view; 22, female genitalia, dorsal view; 23, same, posterior view. (Scales: 0.2 mm)

Nikko-shi, Tochigi-Pref., 9.VII.1956, S. Kimoto leg.; 1♂, Owakudani, Hakone-machi, Ashigara-shimo-gun, Kanagawa Pref., 1.VIII.1986, S. Sato leg.; 1♀, Takanami-ike, Itoigawa-shi, Niigata Pref., 26.VII.1972, M. Ohno leg.; 1♀, Oshinomura, Minami-tsuru-gun, Yamanashi Pref., 2.VIII.1980, S. Matsumoto leg.; 1♀, Oiwake, Karuizawa-machi, Kita-sakugun, Nagano Pref., 25.VII.1971, S. Matsumoto leg.; 1♀, SSW of Mt. Kamuriki-yama, Sakai-mura, Higashi-chikuma-gun, Nagano Pref., 31.V.1993, Y. Nishikawa leg.; 1♀, Izumi, Shirakawa-cho, Kamo-gun, Gifu Pref., 6.VIII.2000, M. Ban leg.; 1♀, Ichinose, Shiramine-mura, Ishikawa-gun, Ishikawa Pref., date unknown, J. Taka leg.; 1♀, Danto-uradani, Shitara-cho, Kita-shitara-gun, Aichi Pref., 940 m alt.,

24.VI.1987, K. Ogata leg.; 1♂, N of Mt. Tsuzumiga-dake, Miyazu-shi, Kyoto Pref., 2.VII.1984, T. Kamura leg.; 1♀, Mt. Myoken-zan, Kawanishi-shi, Hyogo Pref., 2.VII.1954, C. Takeya leg.; 2♀, Mt. Daisen, Saihaku-gun, Tottori Pref., 14.VI.1965, collector unknown; 1♀, Rakuzan, Matsue-shi, Shimane Pref., 14.VI.1965, collector unknown.

**Diagnosis.** This species is closely related to *Kishidaia conspicua* (L. Koch 1866) n. comb., but is distinguished from the latter by the following points: embolus of male palp is smooth (Figs. 16–17) and spermathecal bases of female genitalia are small (Figs. 22–23) in *K. albimaculata*, while in *K. conspicua*

embolus is folded (Figs. 24–25) and spermathecae have large sclerotized bases in posterior part (Figs. 29–30). In addition, they are also different from each other in the shape of retrolateral tibial apophysis of male palp (Figs. 18–19 & 27).

Described by Kamura (1986).

Measurements (variation). Body length ♂ 4.4–6.45 mm, ♀ 6.6–9.7 mm. Carapace length ♂ 2.15–2.85 mm, ♀ 2.9–3.8 mm; width ♂ 1.45–2.0 mm, ♀ 1.9–2.5 mm.

Remarks. In this species, abdomen has usually distinct white markings, but the markings are rarely indistinct.

Distribution. Japan (Hokkaido and Honshu), Russia (Marusik & Koponen 2000).

*Kishidaia conspicua* (L. Koch 1866) **n. comb.**  
(Figs. 24–30)

*Melanophora conspicua* L. Koch 1866, p. 149, pl. 6 (figs. 90–92).

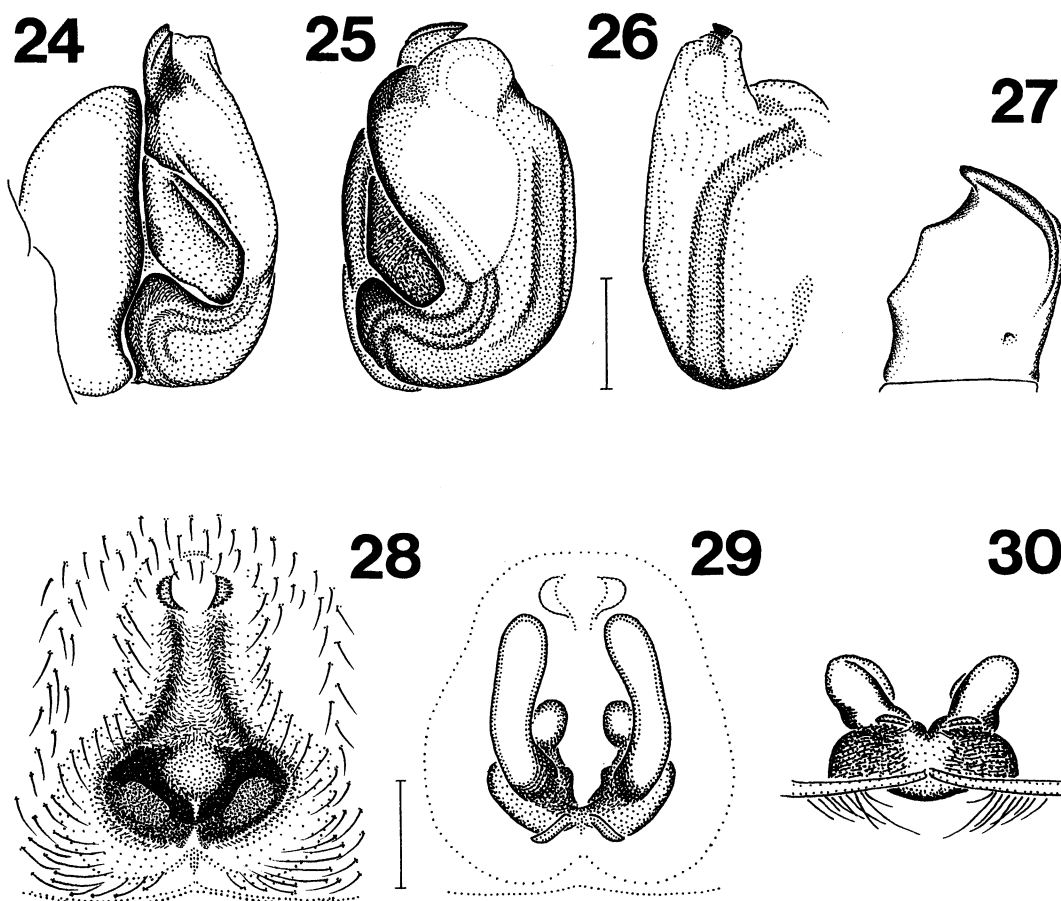
*Poecilochroa conspicua*: Simon 1878, p. 159; Roewer 1954, p. 429; Bonnet 1958, p. 3732; Grimm 1985, p. 164, figs. 190–192; Platnick 1989, p. 482; Platnick 1993, p. 663; Platnick 1997, p. 780.

For other literature see Roewer (1954), Bonnet (1958), Grimm (1985) and Platnick (1989, 1993, 1997).

Specimens examined. 1♂1♀, Walldorf, Hessen, Germany, 9.VI.1957, H. Hesse leg. (Senckenberg-Mus., Frankfurt-M., No. 10745).

Described by Grimm (1985) as *Poecilochroa conspicua*.

Remarks. This species has been known under *Poecilochroa* for long time, but the general appearance and the structures of male palp and female genital organ of this species are very similar to those of *Kishidaia albimaculata*. It is clear that this species is a member of *Kishidaia*. As for the discrimination, see the diagnosis of *K. albimaculata*.



**Figs. 24–30.** *Kishidaia conspicua* (L. Koch 1866) (Hessen, Germany) — 24, Bulb of left male palp, prolateral view; 25, same, ventral view; 26, same, retrolateral view; 27, tibia of left male palp, retrolateral view; 28, epigynum, ventral view; 29, female genitalia, dorsal view; 30, same, posterior view. (Scales: 0.2 mm)

Distribution. Europe to Central Asia (Platnick 1997).

*Kishidaia coreana* (Paik 1992) **n. comb.**

*Poecilochroa coreana* Paik 1992a, p. 118, figs. 1–11;  
Platnick 1997, p. 780.

Remarks. Judging from the original description, this species is related to the above two species. Although I had no opportunity to examine the specimens of this species, I considered that it belongs to *Kishidaia*.

### Acknowledgments

I wish to express my sincere thanks to Dr. Manfred Grasshoff, Senckenberg Museum, Frankfurt, for loaning the specimens of *Poecilochroa conspicua* and Dr. Norman I. Platnick, American Museum of Natural History, New York, for loaning the specimens of several species for comparison. My thanks are also due to the following persons for their offering or loaning the specimens used in this study: Mr. Mitsuru Ban, Kanagawa, Ms. Yuki Hatamori, Osaka, Mr. Takehisa Hiramatsu, Saitama, Mr. Hiroyoshi Ikeda, Kanagawa, Mr. Shuji Ikejiri, Shiga, Mr. Susumu Kaneno, Osaka, Mr. Ken-ichi Kumada, Mie, Mr. Seiji Matsumoto, Tokyo, Dr. Yoshiaki Nishikawa, Osaka, Mr. Kiyoto Ogata, Aichi, Mr. Mitsuki Ogawa, Hiroshima, Dr. Hirotugu Ono, Tokyo, Mr. Hiroyuki Shimizu, Hyogo, Mr. Jun-ichiro Taka, Ishikawa, Dr. Hozumi Tanaka, Osaka, Mr. Tadakiyo Yamano, Osaka, Mr. Nobuki Yasuda, Hokkaido, Dr. Yutaka Yoshiyasu, Kyoto, the late Dr. Chiyoko Okuma, and the late Dr. Takeo Yaginuma.

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よび *Spintharinae* Simon 1894 を本亜科の新参異名とした。比較のためヒメグモ科の亜科の検索表およびヒメグモ亜科の属の検索表を掲げた。ここで取り上げた属のうち2属はこれまで日本では記録がなく、3属は新属である。

2属3種、アカアシヒメグモ属(新称) *Nesticodes* Archer 1950, アカアシヒメグモ *N. rufipes* (Lucas 1846), チクニヒメグモ属(新称) *Neottiura* Menge 1868, フタスジヒメグモ *N. bimaculata* (Linnaeus 1767) および チクニヒメグモ(改称) *N. margarita* (Yoshida 1985) はすでに外国で日本産の種に使われている。

2属, ハイイロヒメグモ属(新称) *Paidiscura* Archer 1950 およびタカネヒメグモ属(新称) *Rugathodes* Archer 1950, は新たに記録される属であり, 2種, ハイイロヒメグモ *P. subpallens* (Bösenberg & Strand 1906) およびタカネヒメグモ *R. nigrolimbata* (Yaginuma 1972) を新たにこれらの属に移した。

3新属, タカユヒメグモ属(新称) *Takayus*, オキナワヒメグモ属(新称) *Nipponidion* およびホシヒメグモ属(新称) *Keijia* を記載し, 9種, タカユヒメグモ *Ta. takayensis* (S. Saito 1939), バラギヒメグモ *Ta. chikunii* (Yaginuma 1960), ヒロハヒメグモ *Ta. latifolius* (Yaginuma 1960), ユノハマヒメグモ *Ta. yunohamensis* (Bösenberg & Strand 1906), コケヒメグモ *Ta. subadultus* (Bösenberg & Strand 1906), シモフリヒメグモ *Ta. lyricus* (Walckenaer 1842), ヤエヤマヒメグモ *N. yaeyamense* (Yoshida 1993), ムナボシヒメグモ *K. sterninotata* (Bösenberg & Strand 1906) およびサトヒメグモ(改称) *K. mneon* (Bösenberg & Strand 1906) をこれらの属に移した。

さらに, 3新種, オキナワヒメグモ(新称) *Nipponidion okinawense*, ミナミホシヒメグモ(新称) *Keijia maculata* およびイリオモテヒメグモモドキ(新称) *Theridula iriomotensis* を記載した。

また, ロシアのサハリンから記載された *Theridula albipes* S. Saito 1935 をコガネヒメグモ属 *Chrysso* に新たに移し, ギボシヒメグモ *C. rapula* (Yaginuma 1960) を *C. albipes* の新参異名とした。さらに, コガネヒメグモ *Chrysso venusta* (Yaginuma 1957) をミャンマーで記載された *C. scintillans* (Thorell 1895) の, サトヒメグモ *Theridion adamsoni* Berland 1934 を *Keijia mneon* (Bösenberg & Strand 1906) の新参異名とした。和名はそれぞれ一般に使われているギボシヒメグモ, コガネヒメグモおよびサトヒメグモを使用する。

中国産の11種, *Takayus kunmingicus* (Zhu 1998), *Ta.*

*naevius* (Zhu 1998), *Ta. lushanensis* (Zhu 1998), *Ta. xui* (Zhu 1998), *Ta. linimaculatus* (Zhu 1998) *Ta. wangi* (Zhu 1998), *Ta. sublatifolius* (Zhu 1998), *Ta. lunulatus* (Guan & Zhu 1993), *Ta. huanrenensis* (Zhu & Gao 1993), *Ta. quadrimaculatus* (Song & Kim 1991), *Keijia qionghaiensis* (Zhu 1998), ヨーロッパおよび北アメリカに分布する1種 *K. tincta* (Walkenaer 1802), および北アメリカ産の3種 *K. antoni* (Keyserling 1884), *K. alabamensis* (Gertsch & Archer 1942) および *K. punctosparsa* (Emerton 1882) を *Theridion* より転属した。

日本産として記載された3つの種名, *Theridion argyrodiforme* Bösenberg & Strand 1906, *Th. indicis* Bösenberg & Strand 1906 および *Th. sagaphilum* Strand 1916 を疑問名とした。

## 日本産のヤリグモ属(クモ目: ヒメグモ科) およびイソウロウグモ亜科 (pp. 183–192)

吉田 哉 (〒990-2484 山形市籠田2丁目7番16号)

マルイソウロウグモ属 *Spheropistha*, ヤリグモ属 *Rhomphaea* およびオナガグモ属 *Ariamnes* を属として復活させ, イソウロウグモ属 *Argyroides* とともにイソウロウグモ亜科として扱い, 検索表および比較のための表を掲げた。

ヤリグモ属に属する4種を日本より記録した。そのうち2種, タテスジヤリグモ(新称) *Rhomphaea hyrcana* (Logunov & Marusik 1990) およびヒゲナガヤリグモ *R. labiata* (Zhu & Song 1991) はイソウロウグモ属より新たに転属したものである。前者は日本新記録となる。また, タニカワヤリグモ(新称) *R. tanikawai* を新種として記載した。さらに, 日本産のイソウロウグモ亜科に属する15種の目録を付した。

日本産のミヤシタイソウロウグモ *Argyroides miyashitai* Tanikawa 1998 および中国産の *A. orbitus* Zhu 1998 および *A. nigroris* Yoshida et al. 2000, をマルイソウロウグモ属 *Spheropistha* に転属した。中国産の *Argyroides gansuensis* Zhu 1998 を *Argyroides fur* Bösenberg & Strand 1906 の新参異名とした。また, 北海道で記載されたギンイソウロウグモ *Argyroides silvicola* S. Saito 1934 を疑問名とした。

## ワシグモ科の1新属ムモントンビグモ属と既知の1属ブチワシグモ属 (pp. 193–200)

加村隆英 (〒567-8502 茨木市西安威2-1-15 追手門学院大学生物学研究室)

ワシグモ科の2属を報告した。1新属を *Sanitubius* ムモントンビグモ属（新称）と命名して記載し、*Sanitubius anatolicus* (Kamura 1989) n. comb. ナミトンビグモの所属を *Herpyllus* から移した。 *Kishidaia* Yaginuma 1960 ブチワシグモ属は *Poecilochroa* Westring 1874 の新参シノニムと見なされていたが、

これを有効な属名と考慮して再記載した。同時に、*Kishidaia conspicua* (L. Koch 1866) n. comb. と *K. coreana* (Paik 1992) n. comb. の所属を *Poecilochroa* から移した。なお、*Sanitubius anatolicus*, *Kishidaia albimaculata* (S. Saito 1934) ヨツボシワシグモ、および *K. conspicua* の図を示した。

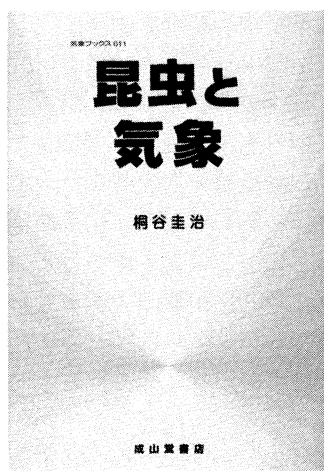
## 書 評 Book Reviews

### 昆虫と気象

桐谷圭治 著 (2001)

成山堂書店、四六版、177 pp.

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スズミグモやコガネグモなど南方系クモの分布北上が話題となっている。地球温暖化やヒートアイランド現象がその一因と想像される。クモは変温動物であるため、気温など気象条件の影響を強く受ける。しかし、クモと気象との関係の研究は多くなく、昆虫について蓄積されたデータや

理論は大いに参考になるだろう。気象ブックスシリーズ 011 (最初に0が付くのは100冊まで出す計画だという) として「昆虫と気象」と題するタイムリーな一般向けの本が出た。標題は「昆虫」であっても、ご安心下さい。ちゃんとクモも登場します (多くはありませんが)。そもそも著者の桐谷圭治博士は、イネの害虫であるツマグロヨコバイの天敵として、クモが重要な役割を果たしていることを明らかにした方であり、この仕事を始めとして、おもに個体群生態学を基礎にした害虫管理 (防除) の仕事に携わって来られた。

本書の約2/3を占める第一章「虫たちと気象」では、害虫を中心として、昆虫の発生に気象がどのように影響するかを扱っている。害虫防除のためには、発生を予測することが大事だが、気象条件と発生の見目の関係を調べても成功しない。食物や天敵、病気、生息地などへの影響を介して作用しており、そのメカ

ニズムを解き明かすことが重要であることを示している。こう紹介すると堅苦しい内容だと誤解されそうだが、登場するのはおもに著者が関わって来た虫たちであり、当時のエピソードを交えながら物語風に話を進めているので、実に楽しく読める。いくつか例を紹介しよう。アフリカで大発生するバッタは、大発生すると形態や習性も変わり、植物を食い尽くしながら大群で移動するため、人々に恐れられている。日本でも15年ほど前に、鹿児島県の馬毛島でトノサマバッタが大発生し、その始まりから終息までの顛末が語られていて興味深い (標題「二つの顔をもつバッタ」)。ウシカは中国大陆から海を越えて飛来しイネに被害をもたらすが、江戸時代には飢饉の原因ともなった (「日本に定着できない密航者」)。サトイモやダイズの害虫であるハスモンヨトウに対するコサragモのアッと驚く働き (「ハスモンヨトウとコサragモ」; Nakasuji et al. (1973) 参照)。アメリカシロヒトリは、日本に侵入後50年あまり経つが、この間に日長反応が変化して日本の気候に適応し、いわば「ヤマトシロヒトリ」へと進化した (「アメリカシロヒトリの季節適応」)。

第二章「虫たちと温度」と第三章「地球温暖化と昆虫」では、地球環境の変化とくに温暖化という世界的な緊急問題を取り上げている。著者はここ数年あまり、温暖化が昆虫の発生に及ぼす作用を通じて私たちの生活にも影響するという視点でこの問題に取り組んでいる。温暖化が昆虫に与える影響として、分布域の北上や発生回数の増加などが挙げられる。分布の北限が北上しているいくつかの例を示している中で、清水ら (2001) によるタイリクヒメハナカメムシの研究を詳しく紹介している。彼らは、この捕食性のカメムシの分布と気象条件の関係を精細に解析し、本種の分布拡大がヒートアイランド現象によるものであると考察しており、クモの北上を調べる時にたいへん参考になる。

著者は昆虫などの発生回数 (年間世代数) を予測す